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Gabriel-Max-Strasse 29
81545 München (DE)(54) **Exhaust gas purifying system**

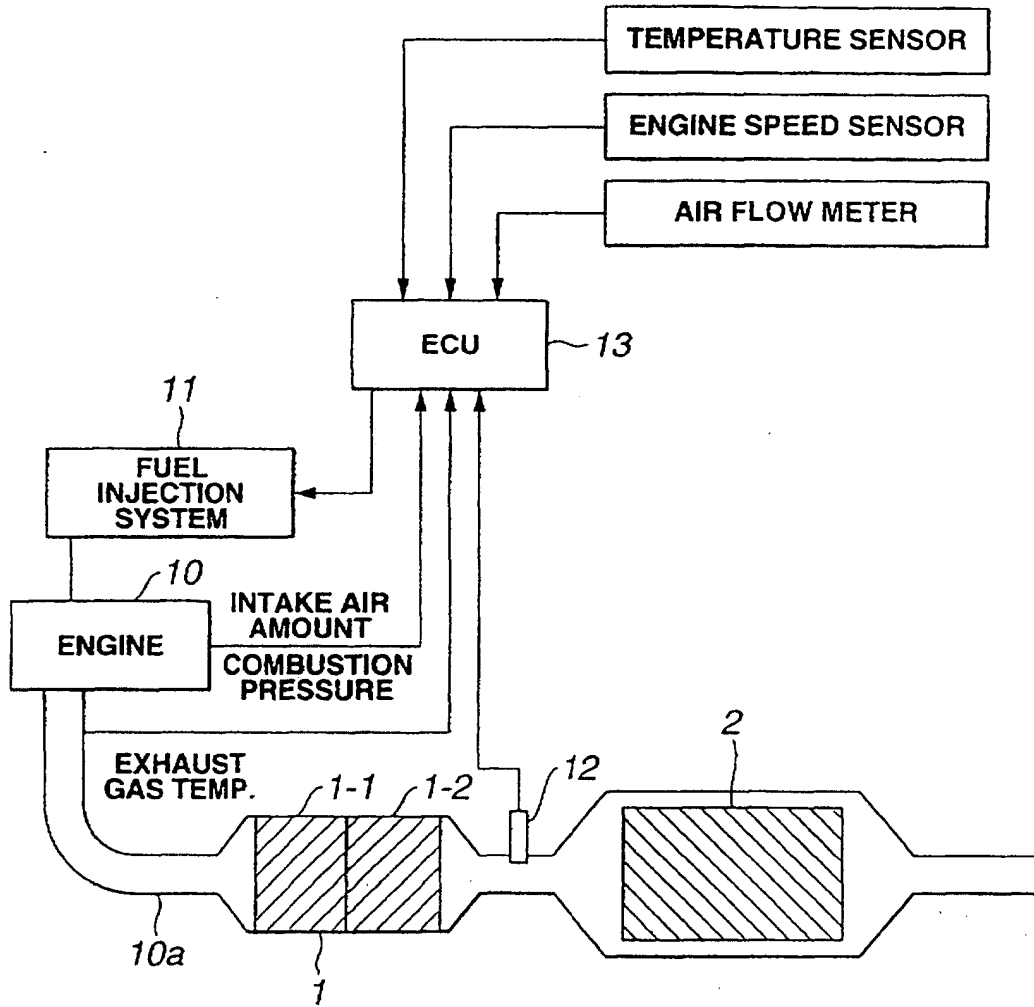
(57) An exhaust gas purifying system for an automotive internal combustion engine comprises a NOx treating catalyst for reducing NOx disposed in an exhaust gas passageway of a combustion device, to reduce NOx in presence of reducing components in exhaust gas. Additionally, a hydrogen enriching device is disposed upstream of the NOx treating catalyst with respect to flow of exhaust gas from the combustion device and arranged to increase a ratio of hydrogen to total reducing components in at least one of combustion gas and exhaust gas so as to meet relations represented by following formulae (1) and (2), when reduction of NOx is carried out by the NOx treating catalyst:

$$[H_2 / TR]_d > [H_2 / TR]_u \quad (1)$$

$$[H_2 / TR]_d \geq 0.3 \quad (2)$$

where $[H_2 / TR]_u$ is a ratio between a concentration $[H_2]_u$ of hydrogen and a concentration $[TR]_u$ of total reducing components in at least one of exhaust gas in the exhaust gas passageway upstream of the hydrogen enriching device and combustion gas in a state before undergoing the hydrogen ratio increasing by the hydrogen enriching means; and $[H_2 / TR]_d$ is a ratio between a concentration $[H_2]_d$ of hydrogen and a concentration $[TR]_d$ of total reducing components in exhaust gas in the exhaust gas passageway upstream of the NOx treating catalyst and downstream of the hydrogen enriching device.**EP 1 094 206 A3**

FIG.2





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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 17 December 2002	Examiner Zebst, M
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons §: member of the same patent family, corresponding document	

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Place of search	Date of completion of the search	Examiner	
MUNICH	17 December 2002	Zebst, M	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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